

REMARKS

Claims 1-18 are pending in the present Application. No claims have been canceled, Claim 4 has been amended and no claims have been added, leaving Claims 1-18 for consideration upon entry of the present amendment. Claim 4 has been amended to claim, in part, a method comprising removing the photoresist pattern using a stripping composition including an acetic acid and an ozone gas included in the acetic acid the form of a bubble. Support for the amendment can be found at least in the Specification as originally filed on p. 14, line 8. No new matter has been introduced by the amendments.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

The Applicants thank the Examiner for the reasons for allowance of Claims 16-18 and the acknowledgement of the restriction.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 4-5 and 7-8 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over US 2002/0173156 to Yates et al. (Yates) in view of US 2003/018823 to Muroaka et al. (Muraoka). Applicants respectfully traverse this rejection.

The Examiner states “Yates al. teaches a method of forming a pattern ... But Yates et al. fails to teach novolak on a layer.” (Office Action dated 10/26/2007, p. 2) The Examiner asserts Muroaka teaches a novolak type resin and that it would have been obvious “to formed a photoresist pattern layer including novolak of Yates et al. because novolak type resist is easy to remove...” (Office Action dated 10/26/2007, p. 3)

The MPEP provides that to establish a *prima facie* case of obviousness the references must teach all the claim limitations, provide a reasonable expectation of success, and provide a suggestion or motivation for their combination. (MPEP 706.02(j))

Claim 4 has been amended to claim, in part, a method comprising removing the photoresist pattern using a stripping composition including an acetic acid and an ozone gas included in the acetic acid in the form of a bubble. Support for the amendment can be found at least in the

Specification as originally filed on p. 14, line 8. No new matter has been introduced by these amendments.

One of ordinary skill in the art would have understood that the stripping composition claimed by the applicant comprises two distinct phases, acetic acid (a liquid) and an ozone gas, in the form of a bubble, as is described in the specification on p. 11, line 22. Thus the applicants disclose the “concentration of ozone gas included in the acetic acid is about 80,000 to about 90,000 ppm.” Specification p. 17, lines 5-6.

Yates does not teach a stripping composition including an acetic acid and an ozone gas included in the acetic acid in the form of a bubble. Yates teaches solutions where an organic acid solution is saturated with ozone, or an ozonated organic acid aqueous solution contains ozone at less than its saturation point. (Yates, Col. 3, ¶ 0027) Yates teaches “Concentrations of 50 ppm to 150 ppm ...” Yates p. 3, ¶ 0027. Thus one of ordinary skill in the art would understand Yates to teach a single-phase solution in which ozone is dissolved. Also, the concentration of ozone disclosed by Yates, 50 to 150 ppm, is distinctly lower from that disclosed by the Applicants, 80,000 to 90,000 ppm. The high concentration of ozone in the presently claimed invention occasions the presence of bubbles, which is in direct contradiction to that disclosed by Yates. Therefore one of ordinary skill in the art would understand the composition disclosed by Yates to be distinct from that claimed by the Applicants. Yates thus teaches away from the claimed composition.

In addition, because Yates teaches a solution comprising 50 to 150 ppm ozone, one of ordinary skill in the art would not have been motivated to modify its composition to arrive at the claimed composition where ozone gas is included in the form of a bubble.

Muraoka discloses the solubility of ozone in cold water reaches 70 to 100 ppm. Muraoka p. 1, ¶ 0005. Muraoka also teaches “dissolving ozone in the liquid”. (Muraoka, Col. 3, ¶ 0043 and ¶ 0054) Because Muraoka does not teach ozone in the form of a bubble, Muraoka does not mitigate the deficiencies of Yates. Moreover, because Muraoka discloses the solubility of ozone reaches 70 to 100 ppm, one of ordinary skill in the art would not have been prompted to consider the claimed composition, where ozone gas is included in the form of a bubble. Therefore the references, in combination, do not teach all of the limitations of Claim 4. Claim 4 is therefore

patentable over Yates in view of Muraoka. Claims 5 and 7-8 depend upon Claim 4, thus are also patentable.

Notwithstanding the above assertion that a *prima facie* case of obviousness does not exist, an applicant can also rebut a *prima facie* case of obviousness by presenting evidence of unexpected advantageous properties. (MPEP 716.02(a)(II)) Applicants observed a stripping rate of 6µm/min and that “the stripping rate of the stripping composition of the invention is greatly superior to that of the stripping composition including ozone and the ultra pure water.” The applicants respectfully assert that the unexpected stripping rate observed by the applicants supports a finding of nonobviousness.

Thus neither Yates nor Muraoka teach all limitations of the instant claims, and neither reference remedies the deficiencies of the other. Thus the instant claims are patentable over the combination of Yates and Muraoka.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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